

ISSUE DATE: July 31, 1995

DOCKET NO. E-017/RP-94-443

ORDER APPROVING RESOURCE PLAN

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

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Chair
Commissioner
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In the Matter of Otter Tail Power Company's
1994 Biennial Resource Plan Filing

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PROCEDURAL HISTORY

On October 3, 1994, Otter Tail Power Company (Otter Tail or the Company) filed its 1994 biennial resource plan.

The Department of Public Service (the Department) petitioned for and received intervenor status as of right pursuant to Minn. Rules, part 7843.0300, subp. 7.

On February 1, 1995, the Department filed comments regarding Otter Tail's resource plan filing.

On March 29, 1995, Otter Tail filed reply comments.

The matter came before the Commission for consideration on July 13, 1995.

FINDINGS AND CONCLUSIONS

I. INTRODUCTION

The Department recommended that the Commission accept Otter Tail's resource plan as complete and generally satisfactory. The Department made several suggestions for improvements to the Company's future resource plan filings.

During the course of discussions between Otter Tail and the Department, the parties came to agreement on most of the issues raised by the Department.

The Commission agrees with the Department that the Company's plan is acceptable. The Commission will discuss the major issues raised in the resource plan filing.

II. MAJOR ISSUES FROM THE RESOURCE PLAN

A. Planning Approach

1. Introduction

Otter Tail's planning approach included several steps. The Company first developed three load-forecast scenarios--low, base, and high--then developed forecasts of its load-management capability. Otter Tail next used a demand-side management analysis tool to produce data necessary for developing marginal cost information. Finally, the Company used its computer model to develop a series of resource plans.

2. Positions of Parties

While the Department believed the Company's planning approach was generally sound, the Department felt that the Company's integration of demand- and supply-side resource alternatives could be improved. The Department recommended that Otter Tail consistently screen and model resources or packages of resources under all three environmental cost scenarios: zero; the Commission's minimum interim values; and the Commission's maximum interim values.

Otter Tail responded that it already used three different environmental cost values in its planning process, and did not need to be further ordered to do so. The Department agreed.

3. Commission Action

Minn. Stat. § 216B.2422 requires utilities to use environmental costs established by the Commission when evaluating and selecting resource options.

The Commission's March 1, 1994, ORDER ESTABLISHING INTERIM ENVIRONMENTAL COST VALUES¹ required electric utilities to apply zero, maximum, and minimum environmental cost interim values, as established in that Order, in resource plan proceedings. The Order stated that the interim cost values would not apply to decisions regarding the dispatch of electric power from existing facilities.

¹ In the Matter of the Quantification of Environmental Costs Pursuant to Laws of Minnesota 1993, Chapter 356, Section 3, Docket No. E-999/CI-93-583

The Commission finds that Otter Tail has properly developed the necessary environmental cost scenarios in its resource plan filing. The Company's overall planning approach is well-designed and appropriate.

B. Demand Forecasting

1. Background

Otter Tail used a computer model to develop three separate load forecast projections: a base scenario representing the Company's best estimate of the future; a low scenario; and a high scenario. The Company projected summer season deficits beginning in 1997 and continuing until 2005 and winter capacity deficits from 2004 through 2009. Otter Tail believed that its Short Range Action Plan, consisting of specific resource-related actions that the Company expects to take during the period from 1995-1999, should resolve projected deficits.

2. Positions of the Parties

The Department considered Otter Tail's demand forecast generally acceptable and did not produce an alternative forecast. The Department did recommend several changes and improvements to the Company's forecasting process. These recommendations included Otter Tail's improving the explanatory value of its industrial sector energy-intensity trend models by: a) increasing the number of observations of energy intensity; b) disaggregating and/or regrouping the current SIC code groupings; and c) increasing the number of explanatory variables used to explain the variations in energy intensity. The Department also recommended requiring Otter Tail to estimate the probability of the low, base, and high forecast scenarios.

After the Department and the Company discussed these recommendations, the Department reduced its specific recommendations to two: the Company should enhance its forecast documentation; and the Department, the Company and other interested parties should meet to discuss the Company's forecasting process, with the goal of incorporating the product of their discussions in the Company's next resource plan filing.

Otter Tail agreed to the Department's final recommendations.

3. Commission Action

The Commission agrees with the Department that Otter Tail's forecasting methods are generally sound. While the Commission will not require the parties to meet to discuss further refinements to the Company's methods, the Commission encourages the parties to continue their fruitful dialogue.

C. Rate Design

1. Background

In Otter Tail's last resource plan proceeding, Docket No. E-017/RP-92-484, the Commission required Otter Tail to include in its 1994 resource plan "a discussion of how and to what extent rate design can be used to achieve DSM goals, including, at a minimum, a discussion of the rate design options proposed by the intervenors in this case." Otter Tail duly included a Rate Design Report, which discussed these issues, in its 1994 resource plan filing.

2. Positions of the Parties

The Department stated that the *optimal rate* equals the sum of the marginal internal and external (or marginal social) costs. The Department argued that Otter Tail must calculate marginal costs and assign external costs. These components will be available when Otter Tail completes its marginal cost study and the Commission has determined the appropriate value for environmental externalities in Docket No. E-999/CI-93-583, the ongoing environmental cost proceeding.

The Department recommended that the Commission require Otter Tail to report on the results of its marginal cost study in its next resource plan. If the study indicates that marginal internal costs are close to or exceed existing rates, the Commission should then further explore the issue of environmental adders reflected in rates.

While Otter Tail did not object to including general discussions of its various rate design studies and analyses in its next resource plan filing, the Company objected to the inclusion of environmental cost values in the development of rates.

3. Commission Action

The Commission strongly recommends that Otter Tail include the results of its rate design studies--marginal cost, real time pricing and other innovative rate proposals, use of seasonal rates, load research and the development of new classes of customers, and minimum-distribution system study--in its next resource plan filing. These study results should be a valuable contribution to the selection of appropriate resources.

The Commission notes that Minn. Stat. § 216B.2422, subd. 3 requires the Commission to quantify and establish a range of environmental costs associated with various methods of electricity generation. The Commission has established interim environmental cost values in Docket No. E-999/CI-93-583, and is proceeding toward a final determination pursuant to its statutory mandate. Given this set of circumstances, the Commission will not at this time require Otter Tail to address the issue of including environmental cost adders in rates. Further direction on this issue will be available to the Commission, the Department, and the Company when the environmental externalities proceeding is completed.

D. Supply-Side Resources

1. Background

Otter Tail evaluated a number of alternative supply side resources and provided a discussion of each. The alternatives included such options as pulverized coal, small combustion turbine cogeneration, coal gasification, whole tree energy, wind, hydro, and independent power producers. Based upon the analysis, the Company chose several options for implementation, including reducing air heater leakage and installation of a new feedwater heater at Big Stone Plant, installing new inlet guide vanes at the Jamestown combustion turbine peaking plant, changing peak reserve ratings for combustion turbine peaking plants, switching from lignite to sub-bituminous coal at Big Stone Plant, and installing a new low pressure rotor at Big Stone Plant.

2. Positions of the Parties

The Department focused on the proposed level and mix of the Company's supply-side resources. While the Department did not dispute the Company's supply-side analysis, the Department did recommend that Otter Tail continue its evaluation of wind power as a potential supply-side energy resource.

Otter Tail did not object to continuing its evaluation of wind power, among other supply-side alternatives.

3. Commission Action

Otter Tail has thoroughly evaluated and discussed most viable supply-side alternatives, including wind power, in its resource plan filing. The Commission finds that Otter Tail's supply-side resource analysis is a useful component of its resource plan.

E. Demand-Side Resources

1. Background

Otter Tail's demand-side management (DSM) potential study was used to develop end-use load data for the Company's residential, commercial, and industrial customer classes and to assess the DSM potential for these customer classes. In the study, four potentials were identified--technical, economic, gross market, and net market.

Otter Tail estimated the total cumulative DSM savings potential for all three customer sectors at just over seven percent of the Company's total sales over the 1994-2015 time period.

Otter Tail stated that whenever specific demand-side applications are identified that meet the Company's operation needs, projects will be developed to address the potential applications.

2. Positions of the Parties

The Department recommended that the Commission accept Otter Tail's use of the Department's previous DSM goal recommendations on an interim basis. The Department also recommended that the Commission find that Otter Tail is proceeding satisfactorily with its DSM potential study and that the Company should continue to review the validity and results of the study for inclusion in its 1996 plan.

The Company agreed with the Department's recommendations.

3. Commission Action

The Commission agrees with and adopts the recommendations of the Department concerning Otter Tail's demand-side resource filing.

F. Contingency Planning

1. Background

In its contingency planning efforts, Otter Tail addressed several uncertainties which fall loosely into three categories--demand, environmental regulation, and supply.

Demand uncertainties focused on variables of low or high demand growth, surplus capacity and capacity shortage.

Regulatory contingencies included implementation of EPA air toxic compound emissions limits, application of an energy tax, and future NOx emission limits.

Supply uncertainties included failure or sudden retirement of existing generation, development of a large qualifying facility, and non-availability of purchased power.

2. Positions of the Parties

Although the Department believed that Otter Tail had addressed most of the Department's concerns raised in the last resource plan docket, the Department found that Otter Tail's current plan was deficient in two areas. The Department recommended that the Commission require Otter Tail to include in its next resource plan the specific long-run resources to be added under the following scenarios: a significant load addition due to a new customer; and a significant loss of capacity due to an unscheduled outage of a coal-fired generating unit.

Otter Tail argued that these contingencies had already been covered in its planning process.

Otter Tail also stated that the Department's recommendation covered too many possible variables, rendering analysis overly burdensome and ultimately useless.

3. Commission Action

The Commission finds that Otter Tail's contingency analysis is sufficient for acceptance of the 1994 resource plan. The Commission recommends that the parties continue to explore all relevant contingencies, and the Company's internal procedures for addressing the contingencies, in future resource plan dockets.

III. COMMISSION DECISION

The Commission approves Otter Tail's 1994 resource plan filing.

The Commission notes with approval the spirit of cooperation which has existed between the Company and the Department throughout the development of Otter Tail's 1994 resource plan. Both parties agree that their ongoing dialogue has enabled them to develop and resolve most issues to their mutual satisfaction.

The product of this process is a resource plan which should help Otter Tail achieve the goals of the resource plan statute and rules--the wise selection among resource options in order to provide adequate, reliable, and reasonable electric power.

As Otter Tail drafts its 1996 resource plan, the Commission urges the parties to continue their dialogue, noting particularly the issues raised in this and prior resource plan Orders, as well as other issues developed in the parties' discussions.

ORDER

1. The Commission approves Otter Tail Power Company's 1994 resource plan filing.
2. This Order shall become effective immediately.

BY ORDER OF THE COMMISSION

Burl W. Haar
Executive Secretary

(S E A L)